## Gestational Diabetes Treatment Shown Effective

BY MIRIAM E. TUCKER

Senior Writer

reatment of gestational diabetes reduces serious perinatal morbidity, Caroline A. Crowther, M.D., of the University of Adelaide (Australia) and her associates reported.

Although the risks associated with gestational diabetes mellitus (GDM) are well recognized, it has been uncertain whether screening and treatment to reduce maternal glucose levels also reduce these risks. Given this uncertainty, professional groups disagree on which patients should be screened, the investigators said (N. Engl. J. Med. 2005;352:2477-86).

Now, data in favor of screening come from the 18-center Australian Carbohydrate Intolerance Study in Pregnant Women (ACHOIS) in which serious perinatal complications occurred in just 1% of the infants of 490 women with GDM who were randomized to intensive glucose management, compared with 4% of 510 women who received routine care.

In an accompanying editorial, Michael F. Greene, M.D., and Caren G. Solomon, M.D., wrote that "this study provides critical evidence that identifying and treating [GDM] can substantially reduce the risk of adverse perinatal outcomes without, at least in this trial, increasing the rate of cesarean delivery."

However, Dr. Greene and Dr. Solomon, both on the editorial board of the New England Journal of Medicine, noted that the study leaves unanswered the question of what level of blood glucose warrants routine intervention (N. Engl. J. Med. 2005;352:2544-6).

The study included women with a singleton or twin pregnancy between 16 and 30 weeks' gestation who had at least one risk factor for GDM on selective screening or a positive 50-g oral glucose challenge test, with a 1-hour postchallenge glucose level of at least 140 mg/dL. This was followed by a 75-g oral glucose tolerance test at 24-34 weeks' gestation in which venous plasma glucose was less than 140 mg/dL after an overnight fast and 140-198 mg/dL at 2 hours.

When the study began, these women had been classified as having glucose intolerance of pregnancy by World Health Organization criteria, but during the course of the study (in 1998) WHO began classifying any glucose level above normal as being GDM. Women whose glucose values exceeded these cutoffs were not included in the study.

Women randomized to intensive intervention were informed of their diagnosis. They received dietary counseling and were taught how to perform self–blood glucose monitoring, with targets of no more than 99 mg/dL premeal and 126 mg/dL 2 hours after eating.

Twenty percent of the women received insulin therapy. Women randomized to routine care were told they did not have GDM, according to Dr. Crowther and her associates.

Serious perinatal outcomes, including death, shoulder dystocia, bone fracture, and nerve palsy, occurred in 1% of the in-

tervention group vs. 4% of the routine care group after adjustment for maternal age, race/ethnicity, and parity. Thus, 34 mothers would need to be treated to prevent one serious outcome in an infant, they said.

Women in the intervention group were significantly more likely to have induction of labor (39% vs. 29%), but the rates of cesarean delivery were similar in both groups (31% vs. 32%), as were the reasons for it. Infants in the intervention group

also had fewer admissions to the neonatal nursery (71% vs. 61%).

Birth weights were significantly lower among the infants born to women in the intervention group (3,335 g vs. 3,482 g), and these infants were also born at an earlier gestational age.

Significantly fewer infants in the intervention group were large for gestational age (13% vs. 22%), and fewer had macrosomia, defined as a birth weight of 4 kg or greater (10% vs. 21%).

Weight gain was less for women in the intervention group, where fewer were diagnosed with preeclampsia. The rates of prenatal hospital admissions were similar.

In their editorial, Dr. Greene and Dr. Solomon noted that they agreed with the authors' justification for having randomized one group of women to no treatment—that before this study there were no conclusive data regarding the effects of treating GDM, even after the WHO definition was revised.

#### For many patients...



### Excessive sleepiness (ES) can be a real burden.

# Excessive sleepiness is a common and debilitating symptom for many patients. Luckily, there <u>is</u> a simple way to identify it.

Excessive sleepiness affects as many as 1 out of every 10 Americans.¹ Regardless of the underlying etiology, ES can have a tremendous impact on patients' daily lives. In fact, nearly 43% of Americans report that ES interferes with their daily activities² It has also been suggested that 50% of work-related accidents and 25% of household accidents are caused by ES.¹ Despite the negative impact of ES, it is often unrecognized and untreated. Identifying ES and resolving it in your patients can be important steps toward improving their overall clinical condition and quality of life.³⁴

#### Identifying ES

Patients suffering with ES may complain of fatigue, tiredness, lack of energy, low motivation, difficulty concentrating, and reduced productivity.<sup>45</sup> Excessive sleepiness often occurs in patients with a variety of conditions, including depression, Parkinson's disease, obstructive sleep apnea (OSA), shift work sleep disorder, narcolepsy, and multiple sclerosis.<sup>4-9</sup>

Results from studies in several of these conditions indicate that:

• In major depression, as many as 1 out of every 5 natients.

- In major depression, as many as 1 out of every 5 patients experience ES<sup>7</sup>
- In Parkinson's disease, nearly 80% of patients experience ES<sup>6</sup>
   In OSA the most common daytime symptom is ES affecting
- In OSA, the most common daytime symptom is ES, affecting nearly 50% of patients<sup>5,9</sup>

#### Screening for ES

The Epworth Sleepiness Scale is a validated, 8-item survey used to assess patient-perceived ES and its impact on patients' ability to participate in daily activities. 10 Integrated into routine evaluations, the Epworth Sleepiness Scale (see Figure 1) can indicate which patients may need further evaluation and/or treatment.

Figure 1. Epworth Sleepiness Scale

Rate your sleepiness with the following scale...

0 = would never doze
1 = slight chance of dozing
2 = moderate chance of dozing
3 = high chance of dozing

...for the following situations

— Sitting and reading
— Watching TV
— Sitting inactive in a public place (eg, a theater or a meeting)
— As a passenger in a car for an hour without a break

— Lying down to rest in the afternoon when circumstances permit
— Sitting and talking to someone
— Sitting quietly after a lunch without alcohol
— In a car, while stopped for a few minutes in traffic

Add up the numbers for each situation to get your score.
A total score of 10 or more suggests the need for further evaluation

#### Treating ES

Once patients with ES have been identified, the first step toward treatment is recommending changes in sleep hygiene. For some patients, however, improving sleep hygiene is not enough. Fortunately, there are additional treatments available for those patients who may need further help.

#### Don't let ES hold your patients back

Recognizing and treating ES can help patients lead healthier and more productive lives.

To obtain free copies of the Epworth Sleepiness Scale, or for more information on ES, call 1–866–ES FACTS (373–2287).



References: 1. Ohayon MM, Guilleminault C. Epidemiology of sleep disorders. In: Chokroverty S, ed. Sleep Disorders Medicine. Boston, Mass: Butterworth-Heinemann; 1999:301-316. 2. National Sleep Foundation. 2000 omnibus sleep in america poll. Available at http://www.sleepfoundation.org/publications/2000poll.html. Accessed September 3, 2003. 3. Lamberg L. Sleep disorders, often unrecognized, complicate many physical illnesses. JAMA 2000;284:2173-2177. 4. Aldrich MS. Sleep Medicine. New York, NY: Oxford University Press; 1999. 5. Chervin RD. Sleepiness, faitique, tiredness, and lack of energy in obstructive sleep apnea. Chest. 2000;118:372-379. 6. Brodsky MA, Godbold J, Roth T, Olanow CW. Sleepiness in Parkinson's disease: a controlled study. Mov Disord. 2003;18:688-672. 7. Horwath E, Johnson J, Weissman MM, Hornig CD. The validity of major depression with atypical Features based on a community study. Affect Disord. 1992;26:117-125. 8. Freal JE, Kraft Grovell JK. Symptomatic fatigue in multiple sclerosis. Arch Phys Med Rehabit. 1994;65:135-138. 9. Robinson A, Guilleminault C. Obstructive sleep apnea syndrome. In: Chokroverty S, ed. Sleep Disorders Medicine. Boston, Mass: Butterworth-Heinemann; 1999:331-354. 10. Johns MW. A new method for measuring daytime sleepiness: the Ebworth Sleepines Scale. Sleep. 1991;14:540-545.

© 2004 Cephalon, Inc. EDS017 Jun 2004 All rights reserved.